



# VETERINARIAN

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## Veterinarian

Veterinarians care for the health of pets and farm animals. Some Veterinarians use their skills to protect humans against diseases carried by animals and conduct clinical research on human and animal health problems. Many also play an important research role in broadening our knowledge of animals and medical science.

Education Requirements: Doctoral Degree



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# AGRICULTURAL SCIENTIST

# Agricultural Scientist

Agricultural Scientists study and perform research on soil, plants, animals and animal products. They look for ways to improve crop yields with less labor, control pests and weeds safely as well as conserve soil and water. Along with food scientists they play an important role in making sure that the nation's food supply is safe. Some Agricultural Scientists research ways to change raw agricultural products into healthy food options or even fuel that we can use for our cars, trucks and homes.

Education Requirements: Four-Year Bachelor's degree,  
Master's degree,  
Doctoral degree



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**BOTANIST**

# BOTANIST

## Botanist

Botanists study plants and plant environments. Some study all different types of plant life, including algae, fungi, lichens, mosses, ferns, conifers and flowering plants. Others specialize in areas such as the classification of plants, the structure and function of plant parts, the causes and cures of plant diseases, the interaction of plants with other organisms and the geological record of plants. Some even research the economic impact that plants and crops have on countries all over the world.

Education Requirements: Four-Year Bachelor's degree,  
Master's degree



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# FARM AND HOME MANAGEMENT ADVISOR

# Farm and Home Management Advisor

Farm and Home Management Advisors teach people how to manage their farms and homes. They give advice on how to care for animals, increase crop yields, use machinery and plan a budget. Other related professions include county agricultural agents, feed and farm management advisors, home economists and extension service advisors. Farm and Home Management Advisors are often a great source of information for families about new and improved techniques or research developments that are available to them.

Education Requirements: Four-Year Bachelor's degree,  
Master's degree



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# AGRICULTURAL SCIENCE PROFESSOR

# Agricultural Science Professor

Agricultural Science Professors instruct students in one or more agricultural subjects. These include agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management and agricultural soil conservation. Agricultural Science Professors work at either the high school or college level training and advising the next generation of agriculturalists. Many of these Professors continue to conduct research projects while they teach in order to stay up to date with what is happening in their field.

Education Requirements: Four-Year Bachelor's degree,  
Master's degree,  
Doctoral degree



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# FORESTER AND CONSERVATION SCIENTIST

# Forester and Conservation Scientist

Forester and Conservation Scientists oversee our nation's forests, rangelands, wildlife, minerals, water and other natural resources. They watch consumption, conservation and recreational effects to make sure that the land remains healthy for future generations. This includes monitoring disease, insects, fires, planting and harvesting. Forester and Conservation Scientists work with both private landowners and government offices to protect the environment while doing things like increasing the value of the land without creating erosion.

Education Requirements: Four-Year Bachelor's degree,  
Master's degree



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# LANDSCAPE ARCHITECT

# Landscape Architect

Landscape Architects design, plan and manage land, such as parks, homes, offices, campuses, gardens and resorts. They work to make these areas not only practical, but also beautiful and able to fit in with the natural landscape. Landscape Architects choose the location of buildings, roads, walkways and the arrangement of flowers, shrubs and trees in these areas. Another important role of Landscape Architects is to restore areas such as wetlands, stream corridors and mined and forested land back to their natural state after human impact or natural disasters have changed them.

Education Requirements: Four-Year Bachelor's degree,  
Master's degree



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# ENVIRONMENTAL SCIENCE TECHNICIAN



# Environmental Science Technician

Environmental Science Technicians perform laboratory and field tests to monitor and determine the contaminants and causes of pollution in the environment, including radiation and toxic materials. Many Environmental Science Technicians work at private consulting firms and work directly under the supervision of an environmental scientist. Responsibilities range from monitoring land, air and water pollution, to overseeing waste-management operations, transport of dangerous materials and compliance with regulatory laws.

Education Requirements: Four-Year Bachelor's degree



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The background is a solid orange color with a subtle, grainy texture. On the left side, there are several thin, white, curved lines that sweep upwards and outwards, resembling stylized hair or a fan. The word "MICROBIOLOGIST" is centered in the middle of the image in a bold, white, sans-serif font.

**MICROBIOLOGIST**

# MICROBIOLOGIST

## Microbiologist

Microbiologists investigate the growth and characteristics of microscopic organisms such as bacteria, algae or fungi. They monitor the structure and development of these organisms closely to determine changes or problems. Some are medical Microbiologists who specialize in studying the relationship between organisms and disease or the effects of antibiotics on microorganisms. Other Microbiologists specialize in areas such as food microbiology, studying foodborne illnesses or industrial microbiology, studying organisms that create useful products.

Education Requirements: Four-Year Bachelor's degree



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# SOIL SCIENTIST

# Soil Scientist

Soil Scientists study the composition of soils as they relate to plant or crop growth. They also study the responses of various soil types to fertilizers, tillage practices and crop rotation. Many Soil Scientists who work for the U.S. government conduct soil surveys, classifying and mapping soils. They provide information and recommendations to farmers, engineers and other landowners regarding the best use of land and plants to avoid or correct problems, such as erosion.

Education Requirements: Four-Year Bachelor's degree



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# WILDLIFE BIOLOGIST

# Wildlife Biologist

Wildlife Biologists research, conserve and manage wildlife and its habitats. They study the origins, behavior, diseases, genetics and life processes of animals. Many specialize in wildlife research and management, including the collection and analysis of biological data. This information helps them to determine the environmental effects of current land and water resources as well as evaluate the possible impact of future development.

Education Requirements: Four-Year Bachelor's degree



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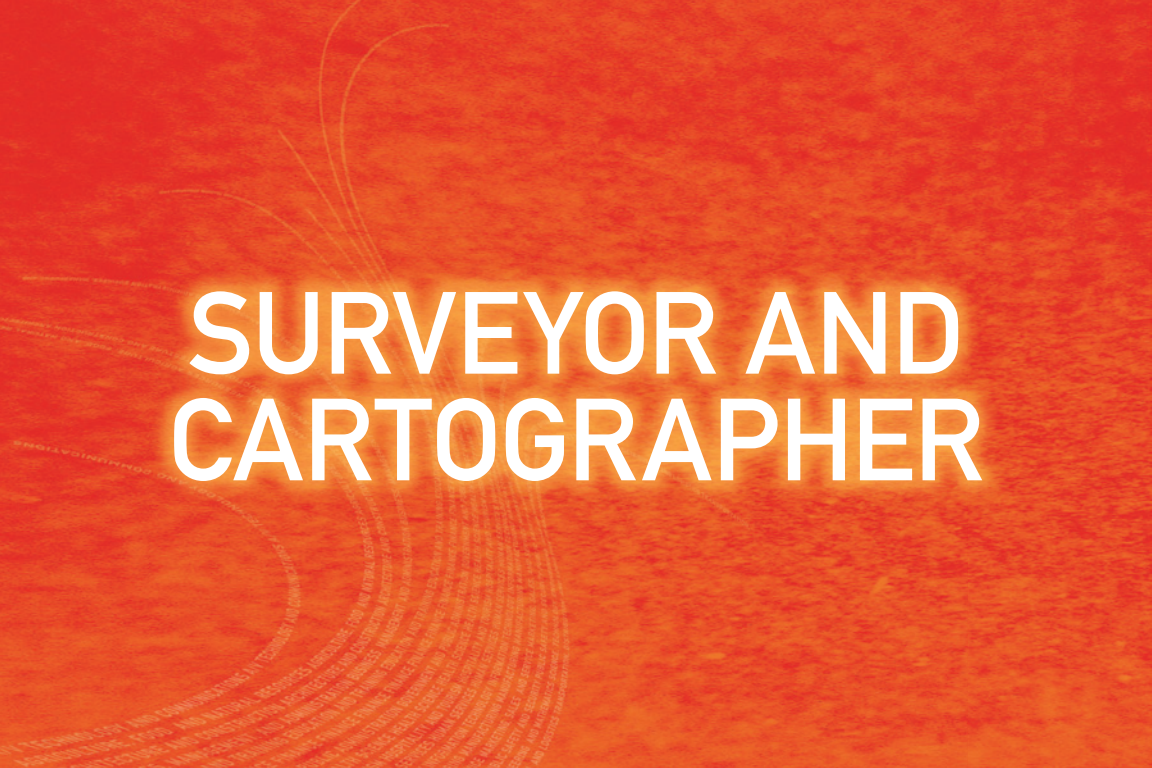
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# **SURVEYOR AND CARTOGRAPHER**

# Surveyor and Cartographer

Surveyors establish official land, airspace and water boundaries. They write descriptions of land for deeds, leases and other legal documents, define airspace for airports and take measurements of construction and mineral sites. Many provide information about the shape, location, elevation or measurements of land or land features. Cartographers then use this information to create or update maps of the area. These two professions often work closely together gathering information for many uses.

Education Requirements: High School diploma



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# ANIMAL CARETAKER

# Animal Caretaker

Animal Caretakers feed, water, groom, bathe and exercise animals. In addition to attending to the basic needs of the animals, Caretakers at shelters also must keep records of the animals received and discharged and any tests or treatments done. Some vaccinate newly admitted animals under the direction of a veterinarian or veterinary technician and care for seriously ill and severely injured animals. Animal Caretakers at shelters also interact with the public, answering telephone questions, screening applicants for animal adoption or educating visitors on a variety of other animal health issues.

Education Requirements: High School diploma



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# GARDENER AND GROUNDSKEEPER

# Gardener and Groundskeeper

Gardeners and Groundskeepers work with the grounds of industrial, commercial, public or private properties to maintain a neat and orderly appearance. They plant trees, flowers and shrubs and trim hedges. Gardeners and Groundskeepers usually work under the direction of an experienced worker or supervisor but may spend much of their time working independently outside. During the planting and growing season, Gardeners and Groundskeepers take advantage of all the daylight hours and may start at sunrise to complete all the necessary work.

Education Requirements: High School diploma



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# VETERINARY ASSISTANT AND TECHNICIAN



# Veterinary Assistant and Technician

Veterinary Assistants and Technicians typically aid veterinarians in activities such as surgical preparation, lab analysis and routine animal care. They often perform various medical tests and treat or diagnose medical conditions and diseases in animals. They may assist with laboratory tests, prepare tissue samples or draw blood samples. They use a variety of medical equipment, such as test tubes and diagnostic equipment and usually work right alongside veterinarians, making sure every animal receives the proper care.

Education Requirements: High School diploma



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